# BENGALURU METROPOLITAN TRANSPORT CORPORATION

**CENTRAL OFFICES: STORES AND PURCHASE.: BANGALORE.**

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**Technical Specification for Liquid Urea AUS-32/Adblue**

**product information-AUS 32**

Chemically AUS 32 is an aqueous solution of 32.5% by weight of urea.

1. **General data related to AUS 32**:

   Chemical composition urea in water.

   CAS-Number(urea):57-13-6(CAS: Chemical Abstracts Service)

   EINECS-Number(Urea): 200-315-5

   COMMON SYNONYMES(Urea): Carbide, Carbonyldiamide, Carbon acid diamid

2. **Physical Characteristics of AUS 32:**

   Solubility of AUS 32 in water: unlimited

   Appearance: clear and colorless

   Smell: on or slightly like ammonia

   Crystallization point:~-11.5 °c

   Viscosity (at 25°c) : ca.1.4 mpa s

   Heat conductivity (at 25°c):ca 0.570 W/m K

   Specific heat(at 25°c): ca 3.40 kJ/kg K

   Surface tension: min 65 Mn/m

3. **Classification /Hazards:**

   Water hazard class (Germany):1.

   R-phrases /S-phrases: Not applicable.

   Transport regulations: According to the ADR/RID transport regulation.

   AUS 32 is classified as a non-hazardous material.

   Hazards: posing no serious risk to humans, animals or the environment if properly handled, AUS 32 is not hazardous according to the European product classification guideline, however, direct contact with other chemical should be avoided, particularly with nitrates and nitrites.

**Properties of AUS 32/ AdBlue as per the revised ISO 22241 Standard**

| | MIN | MAX |
|---|---|---|
| Urea Content | 31.8 | 33.2% by weight |
| Alkalinity as NH3 | | 0.2% by weight |
| Biuret | | 0.3% |
| Insolubles | | 20 mg/kg |
| Aldehyde | | 5 mg/kg |
| Phosphate(PO4) | | 0.5mg/kg |

COSP

| | | |
|---|---|---|
| Aluminium | | 0.5mg/kg |
| Calcium | | 0.5mg/kg |
| Iron | | 0.5mg/kg |
| Copper | | 0.5mg/kg |
| Zinc | | 0.2mg/kg |
| Chromlum | | 0.2mg/kg |
| Nickel | | 0.2mg/kg |
| Magnesium | | 0.2mg/kg |
| Sodium | | 0.5mg/kg |
| Potassium | | 0.5mg/kg |
| Density at 20°c | 1087.0 | 1093.0kg/m3 |
| Refractive index at 20°c | 1.3814 | 1.3843 |

**Important**:-Contents have to be analytically checked for non-dedicated containers prior to filling.

Chief Mechanical Engineer